Linzer biol. Beitr.	50/1	655-659	27.7.2018
---------------------	------	---------	-----------

A catalogue of the family Andrenidae (Hymenoptera: Apoidea) of Eritrea

Michael MADL

A b s t r a c t: In Eritrea the family Andrenidae is represented by two species of the genus *Andrena* FABRICIUS, 1775 (*subfamily* Andreninae) and one species each oft he genera *Borgatomelissa* PATINY, 2000 and *Meliturgula* FRIESE, 1903 (both subfamily Panurginae). The record of the genus *Andrena* is doubtful.

Key words: Andrenidae, Andreninae, Andrena, Panurginae, Borgatomelissa, Meliturgula, Eritrea.

Introduction

In the Afrotropical region the family Andrenidae is represented by more than 30 species (EARDLEY & URBAN 2010).

The Eritrean fauna of of the family Andrenidae is poorly known. The knowledge is based on the material collected by J.K. Lord in 1869 and by P. Magretti in 1900. No further material is known. Up to date two species each of the subfamilies Andreninae (genus *Andrena* FABRICIUS, 1775) and Panurginae (genera *Borgatomelissa* PATINY, 2000 and *Meliturgula* FRIESE, 1903) have been recorded from Eritrea.

Abbreviations

Afr. reg	Afrotropical regionbiogeography	
biogeogr		
biol	biology	
cat	catalogue	
descr	description	
fig. (figs)	figure (figures)	
syn	synonym	
tab	table	
tax	taxonomy	
typ. gen	typus generis	

Annotated Catalogue

Subfamily Andreninae

The records of *Andrena disparilis* WALKER, 1871 and *Andrena munda* WALKER, 1871 from Eritrea by INNES BEY (1911), who listed the remains of the Hymenoptera of the Lord-Collection in Cairo, are doubtful, because WALKER (1871), who studied the original material, described both species from Egypt (Cairo).

Andrena arsinoe SCHMIEDEKNECHT, 1900

Andrena (Graecandrena) arsinoe SCHMIEDEKNECHT, 1900: GUSENLEITNER & SCHWARZ 2002: 97 (tax., descr. ♂ ♀, world cat. Andrena), 473 (map 34).

*Andrena disparilis WALKER, 1871: INNES BEY 1911: 105 (Massawa, cat. Lord Collection).

Distribution: Massawa.

The record from Eritrea is not mentioned in Gusenleitner & Schwarz (2002) and Eardley & Urban (2010).

Andrena savignyi SPINOLA, 1838

Andrena savignyi SPINOLA, 1838: DYLEWSKA 1983: 17-8 (key \bigcirc), 18 (key \circlearrowleft), 20 (fig. 6), 25 (tax, descr. \circlearrowleft \bigcirc , Eritrea not mentioned).

Andrena (Suandrena) savignyi SPINOLA, 1838: GUSENLEITNER & SCHWARZ 2002: 663 (tax., descr. ♂ ♥), 1165 (map 418).

*Andrena munda WALKER, 1871: INNES BEY 1911: 105 (Massawa).

Andrena munda WALKER, 1871: DYLEWSKA 1983: 25 (? syn.).

Andrena munda WALKER, 1871: GUSENLEITNER & SCHWARZ 2002: 663 (? syn.).

Distribution: Massawa.

The record from Eritrea is not mentioned in GUSENLEITNER & SCHWARZ (2002) and EARDLEY & URBAN (2010).

Subfamily Panurginae

Borgatomelissa brevipennis (WALKER, 1871)

Andrena brevipennis n.sp.: WALKER 1871: 46 (descr. ♀, Harkeko).

Anthrena (!) brevipennis WALKER, 1871: DE DALLA TORRE 1896: 107 (world cat. (Djibouti, Eritrea, not Egypt)).

Andrena brevipennis Walker, 1871: Innes Bey 1911: 105 (without locality, cat. Lord Collection).

Andrena brevipennis Walker, 1871: Dylewska 1983: 25 (? syn. of Andrena savignyi Spinola, 1838).

Meliturgula brevipennis (WALKER, 1871): PATINY 1999a: 28 (tax.).

Meliturgula brevipennis (WALKER, 1871): PATINY 1999b: 263 (tax., footnote 3: tax.), 265 (tax.).

Meliturgula brevipennis (WALKER, 1871): PATINY 2000a: 69 (tax., biogeogr.), footnote 3: tax.).

Meliturgula brevipennis (WALKER, 1871): PATINY & GASPAR 2000: 3 (tax.), 4 (footnotes 2, 3: tax.), 5 (tab. 1: tax.), 6 (tax., Harkeko (WALKER (1871), Eritrea, not Ethiopia)), 18 (map 1), 19 (map 2), 21 (map 6), 27 (tax., biogeogr.), 30 (biogeogr.), 32 (tax.), 35 (biogeogr.), 36 (tax., biogeogr.), 40 (biogeogr.), 41 (biogeogr.).

Borgatomelissa brevipennis (WALKER, 1871): PATINY 2000b: 101 (tax., typ. gen., descr. ♂ ♀, without locality (= Harkeko)), 104 (map 1).

Meliturgula brevipennis (WALKER, 1871): MICHENER 2000: 279 (tax.).

Meliturgula brevipennis (WALKER, 1871): GUSENLEITNER & SCHWARZ 2002: 846 (tax., world cat. (Eritrea, not Egypt)).

Borgatomelissa brevipennis (WALKER, 1871): PATINY 2004b: 905 (biogeogr.).

Borgatomelissa brevipennis (WALKER, 1871): GUSENLEITNER et al. 2005: 460 (tax.).

Borgatomelissa brevipennis (WALKER, 1871): PATINY & MICHEZ 2007: 26 (tab. 1: cat. biogeogr.), 29 (biogeogr., fig. 9: map), 31 (biogeogr.).

Borgatomelissa brevipennis (WALKER, 1871): EARDLEY, KUHLMANN & PAULY 2010: 28 (fig. 11C).

Distribution: Harkeko.

Borgatomelissa brevipennis is known from the Afrotropical (Djibouti, Eritrea, Mauritania, Niger) and Palaearctic region. This species is not mentioned in EARDLEY & URBAN (2010).

Meliturgula scriptifrons (WALKER, 1871)

Nomia scriptifrons sp.n.: WALKER 1871: 44 (descr. ♀, Massawa).

Nomia scriptifrons WALKER, 1871: DE DALLA TORRE 1896: 169 (world cat. (Eritrea, not Egypt)).

Osmia scriptifrons (WALKER, 1871): INNES BEY 1911: 105 (Massawa, cat. Lord Collection).

Meliturgula (Meliturgula) scriptifrons (WALKER, 1871): PATINY 1999a: 28 (tax.).

Meliturgula (Meliturgula) scriptifrons (WALKER, 1871): PATINY 1999c: 248 (tax.).

Meliturgula (Meliturgula) scriptifrons (Walker, 1871): Patiny 2000a: 63 (biogeogr.), 64 (tax., descr. \Im \Diamond , Massawa).

Meliturgula (Meliturgula) scriptifrons (WALKER, 1871): PATINY & GASPAR 2000: 16 (tax. Massawa), 25 (map 14), 32 (footnote 11: tax.), 33-34 (tax., biogeogr., footnote 12: tax.), 39 (biogeogr.), 41 (biogeogr.), 68 (tax.).

Meliturgula (Meliturgula) scriptifrons (WALKER, 1871): PATINY 2000c: 303 (tab. 1: world cat.).

Meliturgula scriptifrons (WALKER, 1871): MICHENER 2000: 279 (tax.).

Meliturgula (Meliturgula) scriptifrons (WALKER, 1871): PATINY 2004a: 2 (tab. 1: cat. Afr. reg.), 7-8 (key \lozenge), 9 (key \lozenge), 10 (map 1).

Meliturgula (Meliturgula) scriptifrons (WALKER, 1871): PATINY 2004b: 902 (tab. 1: cat. Afr. reg.), 904 (map 3), 905-6 (biogeogr.).

Meliturgula (Meliturgula) scriptifrons (WALKER, 1871): PATINY & MICHEZ 2007: 24 (fig. 4a: map), 25 (biogeogr., map 5).

Meliturgula scriptifrons (WALKER, 1871): EARDLEY, KUHLMANN & PAULY 2010: 27 (biogeogr.), 28 (figs 11G, H).

Meliturgula scriptifrons (WALKER, 1871): EARDLEY & URBAN 2010: 41 (cat. Afr. reg.).

*Meliturga (!) minima FRIESE, 1912: MAGRETTI 1906: 10 (Sabarguma).

Distribution: Massawa, Sabarguma.

Meliturgula scriptifrons is known from the Afrotropical (e.g. Ethiopia and Sudan) and Palaearctic (Saudi Arabia) regions.

Acknowledgements

I am greatly indebted to Fritz Gusenleitner (Biologiezentrum des Oberösterreichischen Landesmuseums in Linz (Austria)) and Maximilian Schwarz (Ansfelden, Austria), who kindly sent copies of papers. I also thank Manuela Vizek (Naturhistorisches Museum Wien, Austria) for her support in compiling the catalogue.

Zusammenfassung

Die Familie Andrenidae ist in Eritrea mit zwei Arten der Gattung *Andrena* FABRICIUS, 1775 (Unterfamilie Andreniae) vertreten und je einer Arten der Gattungen *Borgatomelissa* PATINY, 2000 und *Meliturgula* FRIESE, 1903 (beide Unterfamilie Panurginae). Das Vorkommen der Gattung *Andrena* ist zweifelhaft.

References

- Dalla Torre C.G. de (1896): Catalogus hymenopterorum hucusque descriptorum et systematicus et synonymicus. Volumen 10: Apidae (Anthophila). Leipzig (Wolfgang ENGELMANN): I-VIII, 643 pp.
- DYLEWSKA M. (1983): Andrena suerinensis FRIESE und verwandte Arten (suerinensis-Untergruppe) (Hymenoptera, Apoidea, Andrenidae). — Entomologische Abhandlungen 47 (1): 15-34.
- EARDLEY C., KUHLMANN M. & A. PAULY (2010): The Bee Genera and Subgenera of subsaharan Africa. Abc Taxa 7: II-VII, 138pp.
- EARDLEY C. & R. URBAN (2010): Catalogue of Afrotropical bees (Hymenoptera: Apoidea: Apiformes). Zootaxa **2455**: 548 pp.
- GUSENLEITNER F. & M. SCHWARZ (2002): Weltweite Checkliste der Bienengattung *Andrena* mit Bemerkungen und Ergänzungen zu paläarktischen Arten (Hymenoptera, Apidae, Andreninae, *Andrena*). Entomofauna Supplement 12: 1280 pp.
- GUSENLEITNER F., SCHWARZ M., ASCHER J.S. & E. SCHEUCHL (2005): Korrekturen und Nachträge zu GUSENLEITNER F. & SCHWARZ M. (2002): "Weltweite Checkliste der Bienengattung Andrena mit Bemerkungen und Ergänzungen zu paläarktischen Arten (Hymenoptera, Apidae, Andreninae, Andrena)". Entomofauna 26 (26): 437-472.
- INNES BEY W. (1911): Une liste d'Insectes recueillis probablement par J. LORD en Égypte et determines par F. WALKER. Bulletin de la Sociéte Entomologique d'Égypte 4 (1): 97-115.
- MAGRETTI P. (1906): Materiali per la conoscenza della Fauna Eritrea. Imenotteri. Fam. Mutillidi. Con appunti del viaggio in Colonia. Bullettino de la Società Entomologica Italiana 37 (1): 3-96.
- MICHENER C.D. (2000): The Bees of the World. Baltimore and London (John HOPKINS University Press): VII-XIV, 913 pp.
- Patiny S. (1999a): Description of Two New Panurgine Species from the Palearctic (Hymenoptera, Andrenidae). Bembix 12: 28-31.
- Patiny S. (1999b): Etude phylogénetique des Panurginae de l'ancien monde (Hymenoptera, Andrenidae). Linzer biologische Beiträge **31** (1): 249-275.
- PATINY S. (1999c): Systématique générique et subgenerique des *Melitturga* LATREILLE-*Meliturgula* FRIESE-*Flavomeliturgula* WARNCKE (Hymenoptera, Andrenidae, Panurginae). — Bulletin de la Société Entomologique de France **104** (3): 241-256.
- Patiny S. (2000a): Synonymie de *Meliturgula minima* FRIESE, 1912 et description d'une nouvelle espèce sénégalaise du genre (Hymenoptera, Andrenidae, Panurginae). Notes Fauniques de Gembloux **37**: 63-70.
- PATINY S. (2000b): Description d'un genre nouveau de Panurginae: *Borgatomelissa* g.nov. (Hymenoptera, Andrenidae). Notes Fauniques de Gembloux **41**: 101-104.
- PATINY S. (2000c): Deux nouvelles espèces des Panurginae d'Angola et d'Afrique du Sud (Hymenoptera, Andrenidae). Bulletin de la Société Entomologique de France **105** (3): 301-304.

- Patiny S. (2004a): Descriptions of the males of two recently described South African Panurginae (Hymenoptera: Andrenidae), with updated keys to the African species of *Melliturga* and *Meliturgula*. Zootaxa **669**: 1-12.
- PATINY S. (2004b): Analysis of the Panurgine distribution in West-Africa and report of new data for *Meliturgula scriptifrons* (WALKER, 1871) in Mali (Hymenoptera, Apoidea, Andrenidae). Linzer biologische Beiträge **36** (2): 901-906.
- PATINY S. & Ch. GASPAR (2000): Biogéographie des *Meliturga* LATREILLE, 1809, *Meliturgula* FRIESE, 1903 et des genres proches (Hymenoptera: Andrenidae, Panurginae).

 Notes Fauniques de Gembloux **39**: 3-44.
- PATINY S. & D. MICHEZ (2007): Biogeography of bees (Hymenoptera, Apoidea) in Sahara and the Arabian deserts. Insect Systematics & Evolution 38 (1): 19-34.
- WALKER F. (1871): A List of Hymenoptera collected by J.K. LORD, Esq. in Egypt, in the neighbourhood of the Red Sea, and in Arabia. With descriptions of the new species. London (E.W. JANSON): III-IV, 59 pp.

Author's address: Michael MADL

Zoologische Abteilung Naturhistorisches Museum

Burgring 7

A-1010 Wien, Austria

E-mail: michael.madl@nhm-wien.ac.at